



Examiners' Report Principal Examiner Feedback

Summer 2023

Pearson Edexcel Level 1 Award
In Numbers and Measures (ANM10)
Paper 1A

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General Comments

Section A is designed to be completed with the aid of a calculator, but the sight of several non-calculator methods would suggest that not all candidates had a calculator. For example, this was apparent in question 2 and question 4. Similarly, a lack of mathematical equipment and being unable to use it correctly was evident due to the number of students that were unable to measure a line or draw an angle.

A lack of working for questions that were almost correct caused a lot of students to lose method marks; in particular, for question 6 on Section B we sometimes saw no method at all.

Students continue to mix up methods, especially for area and perimeter of a rectangle and volume of a cuboid. Though it was encouraging that more students were able to find the area of a compound shape than in the previous series.

It was encouraging that, for the Level 1 papers, there were fewer instances of misreading and miswriting numbers and that most candidates attempted a significant number of questions in both sections.

Comments on individual questions

Section A

1. Nearly all students were able to achieve these 3 marks Some students failed to read the question fully and gave a cost rather than a name or vice versa
2. Nearly all students were able to achieve these 3 marks by correctly using their calculator to find the answers to these calculations. On some occasions an obvious lack of calculator caused issues as students tried to do the calculation without a calculator.
3. Students tend to be particularly good at recognising numbers on number scales and in part (a), where the notches on the scale were each worth 1 unit, a majority of students gained full marks. Part (b) was slightly less well answered, than part a, where some found the scale of one notch equal to 2 units a bit more difficult.

4. This was generally well answered with the main issue being not knowing how to add 75p onto other values given in pounds. Most students knew the method they needed to use but some made numerical errors, which could have been avoided by using a calculator. Some students only found the total for the bill and not the change, showing that they had not read the question properly. Some did not show the subtraction at all which meant that they lost an extra mark if their subtraction was incorrect.
5. This was generally well answered. Students often multiplied the dimensions together to give 420 as a final answer. Those who did not gain full marks usually added the dimensions together and some made attempts at calculating the surface area or partial surface area (i.e. finding the area of 2 or 3 faces and adding them together). Students who did not gain any marks often added the dimensions to get an incorrect answer of 25
6. In part (a) and (b) most were able to convert 35% to a decimal and 90% to a fraction with the most common stated incorrect answer for part (a) being 3.5 and 0.9 for part (b). For part (c) if students had been able to use the calculator facility for fractions this should have been easy. The most common incorrect answer was 16/68, as the candidate multiplied both the numerator and the denominator by 4. In part (d), if students knew what to do they generally gained two marks with one mark for a correct method but an incorrect answer being rarely given. For the vast majority of those that gained no marks in this part of the question, it was because no attempt was made. As previously, in part (e), students found finding 45% of 620 harder than finding a fraction of an amount. Those who attempted the question but didn't achieve any marks usually divided the 620 by 100 to find 10% or divided the 620 by 5 to find 5% or added the wrong parts to form 45%. There were a number of students who simplified, added or subtracted the 45 to or from the 620 or divided by 45 or just multiplied by 45 without dividing by 100. A small number of students added on the 279 or subtracted it from 620 and lost the accuracy mark.
7. In part (a) many students gained at least one mark. Most students clearly knew that they could divide 268 by 60 to find that there were 4 full hours but often then wrote 4 hours and 46 or 47 minutes as they were unsure how to deal with the 0.466.. element. Some candidates used a method of counting up in 60s to at least 240 to gain 1 mark. However, it was common for candidates to write 2 hours and 68 minutes due to misunderstanding that there are 60 minutes in an hour. Part (b) was quite well answered but a variety of errors were frequently seen e.g. forgetting to give units, not knowing how many centimetres in a metre, treating metres in the same way as centimetres when adding/subtracting, giving an answer of 6m 129cm without converting it to 7m 29cm or adding all three lengths.

8. Most were able to tell us that Monday was the day for the 23rd November 2020. The date two weeks after the 25th November was more difficult. Problems included not knowing how many days are in November, and not knowing which month comes after November. Students should note that they can use the calendar to count on – and in this case if they had shown us that the 30th was on the Monday before the 1st then we would have awarded them a method mark. A significant number of students just wrote a day rather than a date or counted backwards instead of forwards by 2 weeks.
9. Many students correctly worked out $2.29/8 = 0.286\ldots$ and gained the method mark, some continued on to give a correct answer 29p to gain full marks. However, a significant number of students either gave a final answer of 0.29p, 28p or 30p. These answers obtained from not converting their answer from pounds into pence, incorrect rounding, or rounding to the nearest 10p respectively. The most common mistake resulting in no marks was by those who divided 8 by 2.29 and got an answer of 3.49
10. More students gained at least one mark on this area question than in the previous series as some students were able to give the area of one of the rectangles. Most students could not complete the full area calculation; only a small minority gained full marks for this question. Calculations given were often linked to the perimeter or involved multiplying the lengths of all the sides together and some worked out areas which were overlapping
11. Most students gained the correct answer for this question requiring the difference between an amount of money in pence and an amount in pounds. A number of students forgot to add the correct units to their answer and a small proportion of students did not convert the currency consistently to pound and pence.
12. Surprisingly although the same skills were involved for this question as for question 6e far fewer students picked up any or full marks on this question. It was not uncommon for students to gain marks on 6e but to be awarded 0 in this question. Similar mistakes were made, for example, some just multiplied by 3 without dividing by 100 but others multiplied by 12 as they wrongly assumed that the 3% interest was added on each month and not annually.
13. Part (a) saw a majority of students gaining the mark whereas part (b) saw less achieving the mark showing that students have more difficulty understanding the word factor than multiple. It was not uncommon for students to give a correct multiple or factor that was not in the list and this gained no marks. In part (c) approximately most students achieved the mark; the most common answer that gained 0 marks was 612 with 1

- 14 This question involved time with part (a) requiring students to add hands to an analogue clock face. Many students were able to correctly add the clock hands to show the time of quarter past eight. In some case it was very hard to tell which of the hands of the clock was longer; if the same or the wrong way round students could benefit from one mark which was frequently awarded. For the hour hand, most students had it pointing directly at eight, not slightly after as it should have been; this was condoned but students should be familiar with this. Part (b) required students to find the time 50 minutes after half past three. This was poorly done with few appearing to take advantage of the clock face above to help them.
15. Students were, on the whole, very competent at drawing a bar chart with many instances of full marks being awarded. Those that didn't gain full marks were often awarded two marks because of not labelling the bars or having one bar at an incorrect height.
- 16 As the final question on the paper we did see a good performance from a fair number but also some students who showed little understanding of what was needed with the numbers often added, subtracted, multiplied or divided seemingly at random. Some students worked with the total number of minutes or texts without considering that some of these were for free. This was one of the questions where learners could have gained more marks by showing their working. For example it was not unusual to see incorrect values for number of calls/texts which would be charged for. If the subtraction $142 - 120$ or $487 - 300$ was the only error it was possible to score 3 out of 4 marks where the subtraction was shown. Near misses were very common, eg 122 or 24 or 87 but these values did not get marks if the subtraction was not seen. One of the main errors on this question was the incorrect conversion of units eg $6p = 0.6$ or the units being inconsistent when the total was found. Students should be made aware that it is not acceptable to round £9.99 to £10. Doing so resulted in 2 marks being lost.

Summary

Based on their performance on this paper, students are offered the following advice:

- Read questions very carefully and ensure the answer is what is asked for.
- Use the calculator when allowed to do so, i.e. on section A.
- Show all working clearly even on the calculator section.
- Learn conversions between metric units of length, weight and capacity.
- Learn the calculations needed for area, perimeter and volume, and know not to get them mixed up.
- Spend more time revising fractions and decimals and various bills, eg phone bills, gas bills, electricity bills etc.
- Learn how to do simple approximating questions.

